[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 72

RIN 3150-AJ22

[NRC-2012-0308]

List of Approved Spent Fuel Storage Casks: MAGNASTOR® System

AGENCY: Nuclear Regulatory Commission.

ACTION: Direct final rule.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is amending its spent fuel storage regulations by revising the NAC International, Inc. (NAC) Modular Advanced Generation Nuclear All-purpose Storage (MAGNASTOR®) System listing within the "List of Approved Spent Fuel Storage Casks" to include Amendment No. 3 to Certificate of Compliance (CoC) No. 1031. Amendment No. 3 revises authorized contents to include:
pressurized water reactor (PWR) damaged fuel contained in damaged fuel (DF) cans that are placed in a damaged fuel basket assembly; PWR fuel assemblies with nonfuel hardware per the expanded definition in the Amendment No. 3 application; and PWR fuel assemblies with up to five activated stainless steel fuel replacement rods at a maximum burnup/exposure of 32.5 gigawatt days per metric ton of uranium (GWd/MTU). Additionally, Amendment No. 3 revises paragraph 4.3.1(i) in appendix A of the CoC Technical Specifications (TS) to clarify that the maximum design basis earthquake accelerations of 0.37g in the horizontal direction (without cask sliding) and 0.25g in the vertical direction at the independent spent fuel storage installation

(ISFSI) pad top surface do not result in cask tip-over. Amendment No. 3 also makes additional changes to appendix A, Technical Specifications and Design Features for the MAGNASTOR® System, and appendix B, Approved Contents for the MAGNASTOR® System, of the CoC.

DATES: The final rule is effective **[INSERT DATE: 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**, unless significant adverse comments are received by **[INSERT DATE: 30 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**. If the rule is withdrawn as a result of such comments, timely notice of the withdrawal will be published in the *Federal Register*. Comments received after this date will be considered if it is practical to do so, but the NRC staff is able to ensure consideration only for comments received on or before this date.

ADDRESSES: Please refer to Docket ID NRC-2012-0308 when contacting the NRC about the availability of information for this final rule. You may access information and comment submittals related to this final rulemaking, which the NRC possesses and is publicly available by any of the following methods:

- **Federal Rulemaking Web site:** Go to http://www.regulations.gov and search for Docket ID NRC-2012-0308.
- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may access publicly available documents online in the NRC Library at http://www.nrc.gov/reading-rm/adams.html. To begin the search, select "ADAMS Public Documents" and then select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to pdr.resource@nrc.gov. An electronic copy of the proposed CoC, including appendices A and B of the TS, and preliminary safety evaluation report (SER) can be found in ADAMS under Package Accession No. ML12227A900. The ADAMS Accession No. for

the MAGNASTOR® Cask System Amendment No. 3 application dated August 26, 2010, is ML102420569.

- **NRC's PDR:** You may examine and purchase copies of public documents at the NRC's PDR, Room O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

FOR FURTHER INFORMATION CONTACT: Naiem S. Tanious, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone: 301-415-6103, e-mail: Naiem.Tanious@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Procedural Background

This rule is limited to the changes contained in Amendment No. 3 to CoC No. 1031 and does not include other aspects of the MAGNASTOR® Cask System design. The NRC is using the "direct final rule procedure" to issue this amendment because it represents a limited and routine change to an existing CoC that is expected to be noncontroversial. Adequate protection of public health and safety continues to be ensured. The amendment to the rule will become effective on **[INSERT DATE: 75 DAYS AFTER PUBLICATION IN THE *FEDERAL***

REGISTER]. However, if the NRC receives significant adverse comments on this direct final rule by **[INSERT DATE: 30 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**, then the NRC will publish a document that withdraws this action and will subsequently address the comments received in a final rule as a response to the companion proposed rule published in the Proposed Rule section of this issue of the *Federal Register*. Absent significant modifications to the proposed revisions requiring republication, the NRC will not initiate a second comment period on this action.

A significant adverse comment is a comment where the commenter explains why the rule would be inappropriate, including challenges to the rule's underlying premise or approach, or would be ineffective or unacceptable without a change. A comment is adverse and significant if:

1) The comment opposes the rule and provides a reason sufficient to require a substantive response in a notice-and-comment process. For example, a substantive response is required when:

a) The comment causes the NRC staff to reevaluate (or reconsider) its position or conduct additional analysis;

b) The comment raises an issue serious enough to warrant a substantive response to clarify or complete the record; or

c) The comment raises a relevant issue that was not previously addressed or considered by the NRC staff.

2) The comment proposes a change or an addition to the rule, and it is apparent that the rule would be ineffective or unacceptable without incorporation of the change or addition.

3) The comment causes the NRC staff to make a change (other than editorial) to the rule, CoC, or TS.

For detailed instructions on filing comments, please see the companion proposed rule published in the Proposed Rule section of this issue of the *Federal Register*.

II. Background

Section 218(a) of the Nuclear Waste Policy Act (NWPA) of 1982, as amended, requires that "the Secretary [of the Department of Energy] shall establish a demonstration program, in cooperation with the private sector, for the dry storage of spent nuclear fuel at civilian nuclear power reactor sites, with the objective of establishing one or more technologies that the [Nuclear Regulatory] Commission may, by rule, approve for use at the sites of civilian nuclear power reactors without, to the maximum extent practicable, the need for additional site-specific approvals by the Commission." Section 133 of the NWPA states, in part, that "[the Commission] shall, by rule, establish procedures for the licensing of any technology approved by the Commission under Section 219(a) [sic: 218(a)] for use at the site of any civilian nuclear power reactor."

To implement this mandate, the Commission approved dry storage of spent nuclear fuel in NRC-approved casks under a general license by publishing a final rule in part 72 of Title 10 of the *Code of Federal Regulations* (10 CFR), which added a new subpart K within 10 CFR part 72 entitled, "General License for Storage of Spent Fuel at Power Reactor Sites" (55 FR 29181; July 18, 1990). This rule also established a new subpart L within 10 CFR part 72 entitled, "Approval of Spent Fuel Storage Casks," which contains procedures and criteria for obtaining NRC approval of spent fuel storage cask designs. The NRC subsequently issued a final rule on November 21, 2008 (73 FR 70587), that approved the MAGNASTOR® Cask System design and added it to the list of NRC-approved cask designs in 10 CFR 72.214 as CoC No. 1031.

III. Discussion of Changes

On August 26, 2010 NAC submitted a request to the NRC to amend CoC No. 1031 (ML102420569). NAC supplemented its request on the following dates: February 4, 2011 (ML11138A224), February 16, 2011 (ML110480498), August 15, 2011 (ML11229A701), October 3, 2011 (ML11287A020), March 21, 2012 (ML120820463), March 30, 2012 (ML12094A056), and April 6, 2012 (ML12104A025). The amendment revises authorized contents to include: 1) PWR damaged fuel contained in damaged fuel cans that are placed in a damaged fuel basket assembly; 2) PWR fuel assemblies with nonfuel hardware per the expanded definition in the Amendment No. 3 application; and 3) PWR fuel assemblies with up to five activated stainless steel fuel replacement rods at a maximum burnup/exposure of 32.5 GWd/MTU.

This amendment also revises paragraph 4.3.1(i) in appendix A of the CoC to clarify that the maximum design basis earthquake accelerations of 0.37g in the horizontal direction (without cask sliding) and 0.25g in the vertical direction at the ISFSI pad top surface do not result in cask tip-over. Furthermore, this amendment makes additional changes to appendix A (ML12227A913) and appendix B (ML12227A912) of the CoC. The changes to the aforementioned documents are identified with revisions bars in the margin of each document.

As documented in the SER (ML12227A914), the NRC staff performed a detailed safety evaluation of the proposed CoC amendment request. There are no significant changes to cask design requirements in the proposed CoC amendment. Considering the specific design requirements for each accident condition, the design of the cask would prevent loss of containment, shielding, and criticality control. If there is no loss of containment, shielding, or criticality control, the environmental impacts would be insignificant. This amendment does not reflect a significant change in design or fabrication of the cask. In addition, any resulting occupational exposure or offsite dose rates from the implementation of Amendment No. 3 would

remain well within the 10 CFR part 20 limits. Thus, the proposed CoC changes will not result in any radiological or non-radiological environmental impacts that significantly differ from the environmental impacts evaluated in the environmental assessment supporting the November 21, 2008, final rule. There will be no significant change in the types or significant revisions in the amounts of any effluent released, no significant increase in the individual or cumulative radiation exposure, and no significant increase in the potential for or consequences from radiological accidents.

This direct final rule revises the MAGNASTOR® System listing in 10 CFR 72.214 by adding Amendment No. 3 to CoC No.1031. The amendment consists of the changes previously described, as set forth in the revised CoC and TS. The revised TS are identified in the SER.

The amended MAGNASTOR® cask design, when used under the conditions specified in the CoC, the TS, and the NRC's regulations, will meet the requirements of 10 CFR part 72; thus, adequate protection of public health and safety will continue to be ensured. When this direct final rule becomes effective, persons who hold a general license under 10 CFR 72.210 may load spent nuclear fuel into MAGNASTOR® Systems that meet the criteria of Amendment No. 3 to CoC No. 1031 under 10 CFR 72.212.

IV. Voluntary Consensus Standards

The National Technology Transfer and Advancement Act of 1995 (Pub. L. 104-113) requires that Federal agencies use technical standards that are developed or adopted by voluntary consensus standards bodies unless the use of such a standard is inconsistent with applicable law or otherwise impractical. In this direct final rule, the NRC will revise the MAGNASTOR® Cask System design listed in § 72.214 (List of Approved Spent Fuel Storage Casks). This action does not constitute the establishment of a standard that contains generally

applicable requirements.

V. Agreement State Compatibility

Under the "Policy Statement on Adequacy and Compatibility of Agreement State Programs" approved by the Commission on June 30, 1997, and published in the *Federal Register* on September 3, 1997 (62 FR 46517), this rule is classified as Compatibility Category "NRC." Compatibility is not required for Category "NRC" regulations. The NRC program elements in this category are those that relate directly to areas of regulation reserved to the NRC by the Atomic Energy Act of 1954, as amended, or the provisions of 10 CFR. Although an Agreement State may not adopt program elements reserved to the NRC, it may wish to inform its licensees of certain requirements via a mechanism that is consistent with the particular State's administrative procedure laws, but does not confer regulatory authority on the State.

VI. Plain Writing

The Plain Writing Act of 2010 (Pub. L. 111-274) requires Federal agencies to write documents in a clear, concise, well-organized manner that also follows other best practices appropriate to the subject or field and the intended audience. The NRC has attempted to use plain language in promulgating this rule consistent with the Federal Plain Writing Act guidelines.

VII. Finding of No Significant Environmental Impact: Availability

Under the National Environmental Policy Act of 1969, as amended, and the NRC

regulations in subpart A of 10 CFR part 51, the NRC has determined that this rule, if adopted, would not be a major Federal action significantly affecting the quality of the human environment and, therefore, an environmental impact statement is not required. The NRC has prepared an environmental assessment (ML13043A147) and, on the basis of this environmental assessment, has made a finding of no significant impact. This rule amends the CoC for the MAGNASTOR® System cask design within the list of approved spent fuel storage casks that power reactor licensees can use to store spent fuel at reactor sites under a general license. Specifically, NAC requested changes to revise authorized contents to include: 1) PWR damaged fuel contained in damaged fuel cans that are placed in a damaged fuel basket assembly; 2) PWR fuel assemblies with nonfuel hardware per the expanded definition in the Amendment No. 3 application; and 3) PWR fuel assemblies with up to five activated stainless steel fuel replacement rods at a maximum burnup/exposure of 32.5 GWd/MTU.

This amendment revises paragraph 4.3.1(i) in appendix A of the CoC to clarify that the maximum design basis earthquake accelerations of 0.37g in the horizontal direction (without cask sliding) and 0.25g in the vertical direction at the ISFSI pad top surface do not result in cask tip-over. Furthermore, this amendment makes additional changes to appendix A (ML12227A913) and appendix B (ML12227A912) of the CoC. The changes to the aforementioned documents are identified with revisions bars in the margin of each document

The environmental assessment and finding of no significant impact on which this determination is based are available for inspection at the NRC PDR, Room O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. Single copies of the environmental assessment and finding of no significant impact are available from Naiem Tanious, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, telephone: 301-415-6103, e-mail: Naiem.Tanious@nrc.gov.

VIII. Paperwork Reduction Act Statement

This rule does not contain any information collection requirements and, therefore, is not subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget (OMB), Approval Number 3150-0132.

Public Protection Notification

The NRC may not conduct or sponsor, and a person is not required to respond to a request for information or an information collection requirement unless the requesting document displays a currently valid OMB control number.

IX. Regulatory Analysis

On July 18, 1990 (55 FR 29181), the NRC issued an amendment to 10 CFR part 72 to provide for the storage of spent nuclear fuel under a general license in cask designs approved by the NRC. Any nuclear power reactor licensee can use NRC-approved cask designs to store spent nuclear fuel if it notifies the NRC in advance, the spent fuel is stored under the conditions specified in the cask's CoC, and the conditions of the general license are met. A list of NRC-approved cask designs is contained in 10 CFR 72.214. On November 21, 2008 (73 FR 70587), the NRC issued an amendment to 10 CFR part 72 that approved the MAGNASTOR® Cask System design by adding it to the list of NRC-approved cask designs in 10 CFR 72.214.

On August 26, 2010 (ML102420569), and as supplemented on February 4, 2011

(ML11138A224), February 16, 2011 (ML110480498), August 15, 2011 (ML11229A701), October 3, 2011 (ML11287A020), March 21, 2012 (ML120820463), March 30, 2012 (ADAMS ML12094A056), and April 6, 2012 (ML12104A025), NAC submitted an application to amend the MAGNASTOR® Cask System. The amendment revises authorized contents to include: 1) PWR damaged fuel contained in damaged fuel cans that are placed in a damaged fuel basket assembly; 2) PWR fuel assemblies with nonfuel hardware per the expanded definition in the application; and 3) PWR fuel assemblies with up to five activated stainless steel fuel replacement rods at a maximum burnup/exposure of 32.5 GWd/MTU.

This amendment also revises paragraph 4.3.1(i) in appendix A of the CoC to clarify that the maximum design basis earthquake accelerations of 0.37g in the horizontal direction (without cask sliding) and 0.25g in the vertical direction at the ISFSI pad top surface do not result in cask tip-over. Furthermore, this amendment makes additional changes to appendix A (ML12227A913) and appendix B (ML12227A912) of the CoC. The changes to the aforementioned documents are identified with revisions bars in the margin of each document.

The alternative to this action is to withhold approval of Amendment No. 3 and to require any 10 CFR part 72 general licensee seeking to load spent nuclear fuel into MAGNASTOR® Systems under the changes described in Amendment No. 3 to request an exemption from the requirements of 10 CFR 72.212 and 72.214. Under this alternative, each interested 10 CFR part 72 licensee would have to prepare, and the NRC would have to review, a separate exemption request, thereby increasing the administrative burden upon the NRC and the costs to each licensee.

Approval of the direct final rule is consistent with previous NRC actions. Further, as documented in the SER and the environmental assessment, the direct final rule will have no adverse effect on public health and safety or the environment. This direct final rule has no

significant identifiable impact or benefit on other Government agencies. Based on this regulatory analysis, the NRC concludes that the requirements of the direct final rule are commensurate with the NRC's responsibilities for public health and safety and the common defense and security. No other available alternative is believed to be as satisfactory, and thus, this action is recommended.

X. Regulatory Flexibility Certification

Under the Regulatory Flexibility Act of 1980 (5 U.S.C. 605(b)), the NRC certifies that this rule will not, if issued, have a significant economic impact on a substantial number of small entities. This direct final rule affects only nuclear power plant licensees and NAC International, Inc. These entities do not fall within the scope of the definition of small entities set forth in the Regulatory Flexibility Act or the size standards established by the NRC (10 CFR 2.810).

XI. Backfit Analysis

The NRC has determined that the backfit rule (10 CFR 72.62) does not apply to this direct final rule because this amendment does not involve any provisions that would impose backfits as defined in 10 CFR 72.62 Therefore, a backfit analysis is not required.

XII. Congressional Review Act

Under the Congressional Review Act of 1996, the NRC has determined that this action is not a major rule and has verified this determination with the Office of Information and Regulatory

Affairs of OMB.

List of Subjects in 10 CFR Part 72

Administrative practice and procedure, Criminal penalties, Manpower training programs, Nuclear materials, Occupational safety and health, Penalties, Radiation protection, Reporting and recordkeeping requirements, Security measures, Spent fuel, Whistleblowing.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; the Nuclear Waste Policy Act of 1982, as amended; and 5 U.S.C. 552 and 553; the NRC is adopting the following amendments to 10 CFR part 72.

PART 72 - LICENSING REQUIREMENTS FOR THE INDEPENDENT STORAGE OF SPENT NUCLEAR FUEL, HIGH-LEVEL RADIOACTIVE WASTE AND REACTOR-RELATED GREATER THAN CLASS C WASTE

1. The authority citation for Part 72 continues to read as follows:

Authority: Atomic Energy Act secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 223, 234, 274 (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2273, 2282, 2021); Energy Reorganization Act sec. 201, 202, 206, 211 (42 U.S.C. 5841, 5842, 5846, 5851); National Environmental Policy Act sec. 102 (42 U.S.C. 4332); Nuclear Waste Policy Act secs. 131, 132, 133, 135, 137, 141 148 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168); sec. 1704, 112 Stat. 2750 (44 U.S.C. 3504 note); Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 549 (2005).

Section 72.44(g) also issued under secs. Nuclear Waste Policy Act 142(b) and 148(c), (d) (42 U.S.C. 10162(b), 10168(c), (d)). Section 72.46 also issued under Atomic Energy Act

sec. 189 (42 U.S.C. 2239); Nuclear Waste Policy Act sec. 134 (42 U.S.C. 10154). Section 72.96(d) also issued under Nuclear Waste Policy Act sec. 145(g) (42 U.S.C. 10165(g)). Subpart J also issued under Nuclear Waste Policy Act secs. 117(a), 141(h) (42 U.S.C. 10137(a), 10161(h)). Subpart K is also issued under sec. 218(a) (42 U.S.C. 10198).

2. In § 72.214, Certificate of Compliance 1031 is revised to read as follows:

§ 72.214 List of approved spent fuel storage casks.

* * * * *

Certificate Number: 1031.

Initial Certificate Effective Date: February 4, 2009.

Amendment Number 1 Effective Date: August 30, 2010.

Amendment Number 2 Effective Date: January 30, 2012.

Amendment Number 3 Effective Date: **[INSERT DATE: 75 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*]**.

SAR Submitted by: NAC International, Inc.

SAR Title: Final Safety Analysis Report for the MAGNASTOR® System.

Docket Number: 72-1031.

Certificate Expiration Date: February 4, 2024.

Model Number: MAGNASTOR®.

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Dated at Rockville, Maryland, this 2nd, day of March, 2013.

For the Nuclear Regulatory Commission.

R. W. Borchardt,
Executive Director for Operations.

[FR Doc. 2013-06015 Filed 03/15/2013 at 8:45 am; Publication Date: 03/18/2013]